

From: [Crossland, Ronnie](#)
To: [Martin, John](#)
Cc: [Rauscher, Jon](#); [Turner, Philip](#); [Smith, Monica](#); [Patel, Anish](#); [Petersen, Chris](#); [Adams, Adam](#); [Smalley, Bryant](#); [Webster, Susan](#)
Subject: FW: Update 21: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators
Date: Saturday, April 6, 2019 2:12:36 PM
Attachments: [20190405_Tank_Map_Information.pdf](#)
[ATT00001.htm](#)

From: Kelly Cook <kelly.cook@tceq.texas.gov>
Sent: Saturday, April 6, 2019 1:47 PM
To: Crossland, Ronnie <Crossland.Ronnie@epa.gov>
Subject: Fwd: Update 21: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Sent from my iPhone

Begin forwarded message:

From: Jonathan Walling <jonathan.walling@tceq.texas.gov>
Date: April 6, 2019 at 12:43:13 PM CDT
To: HSNotify <HSNotify@tceq.texas.gov>, IGR <IGR@tceq.texas.gov>
Subject: Update 21: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 21

Overnight winds were east to southeast at 5-10 mph. Winds are expected to continue out of the southeast today around 10mph with intermittent thunderstorms likely.

Benzene measurements at downwind stationary monitors remain in the low ppb range with the highest concentration of 9.6 ppb measured at the HRM #3 Haden Rd. monitor at 4:00pm yesterday. All downwind monitors are showing benzene concentrations less than 1.0 ppb this morning.

Yesterday, the TCEQ monitoring van began sampling at the Magnolia Ln. location in Deer Park from 8:00am to 2:30pm. No detectable levels of benzene were measured. At approximately 3:00pm, the van relocated to the De Zavalla Rd. location in Channelview, due to winds shifting to the southeast. Monitoring continued at that location throughout the afternoon and overnight. Only one

sample run measured a detectable level of benzene, a 12 ppb hit at approximately 5:20am this morning. Sampling has been occasionally interrupted due to rain.

PM2.5 measurements across Houston this morning are in the "good" range but are expected to increase into the "moderate" range (based on EPA's AQI scale) due to smoke from agricultural burning in Mexico and Central America.

As of the April 6, 2019, 7:00 am tank volume report, the volume of liquid wastes from the event are being accumulated in Tanks 100-28(21,163 bbl), Tank 100-31(95,647 bbl), Tank 80-33(41,094 bbl), Tank 80-34(60,451 bbl) and Tank 50-2(43,216 bbl). The tank farm continues to receive foam. As of April 5, 2019, the reported total amount of contaminated water recovered was 244,281 bbl. Of this, 99,386 bbl were collected by on-water operations and 127,457 bbl from the tank farm area.

ITC continued 24-hour flushing of Tucker Bayou and is removing the liquid wastes from the operations via skimmers at Dock 4 and Dow Bridge to Tanks 80-33 and 100-28.

On April 5, 2019, ITC provided a response to questions posed by the TCEQ concerning wastewater operations and tanks that have stored waste related to the incident. ITC provided a map (attached) of the storage tanks associated to their wastewater treatment system storage tanks and tanks designated as "incident related tanks." ITC also provided a tank volume report of the tanks utilized during the incident. This information is being reviewed by the TCEQ.

The EPA ASPECT aircraft returned to Dallas on April 5, 2019 for maintenance and will return as needed. The TAGA vehicle conducted community monitoring downwind of and around the tank farm. No community impacts were detected.

During the day on April 5, 2019, the Unified Command's Environmental Unit sent sampling teams from CTEH to address allegations and complaints concerning a foam-like substance in residential areas of Channelview and east Harris County. The teams observed foam but were unable to retrieve a viable sample on April 5,

2019. The Environmental Unit is currently developing a procedure to address incoming foam allegations and complaints.

On April 5, 2019, teams of TCEQ regional investigators and the TCEQ contractor, SWS, continued to conduct odor surveys and air monitoring throughout the community using handheld instruments. There were no readings exceeding action levels set by Unified Command. Community monitoring will continue on April 6, 2019, as weather permits.

During the day on April 5, 2019, water samples were collected at 11 sites by two TCEQ regional teams. One surface water quality monitoring team was unable to launch due to unsafe fog conditions in upper Galveston Bay. Sampling areas were east of Channelview, as far as the eastern border of Galveston Bay and as far south as Kemah. Five sites were sampled by surface water quality monitoring teams and six sites by the shore team along the Gulf side of Galveston Island and Crystal Beach on Bolivar Peninsula. Four sites were sampled by SWS at ITC. The TCEQ is continuing to assess surface water quality sampling data as preliminary and final laboratory results are received. Two Shoreline Cleanup Assessment Technique (SCAT) teams operated along the shoreline of the Houston Ship Channel near Jacinto Port and Galveston Bay on Goat Island. One Rapid Assessment Team assisted in SCAT activities. The SCAT teams observed oil on Goat Island that had escaped from nearby booms and operations teams were sent out to fix the booms to prevent oil from escaping onto Goat Island. TCEQ had one person on a SCAT team on April 5, 2019 but will not have anyone on a SCAT team for April 6, 2019.

From: Jonathan Walling

Sent: Friday, April 5, 2019 11:45 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 20: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 20

Overnight winds were southwest at 5 mph, becoming light and variable after midnight. Winds are expected to be out of the southeast today at 5-10mph.

Benzene measurements at stationary monitors remain in the low ppb range. There was a period of elevated benzene measured at Lynchburg Ferry between 10:00pm and midnight with a peak concentration of 64.1 ppb. All downwind monitors are showing benzene concentrations less than 1.0 ppb this morning.

Yesterday, the TCEQ monitoring van sampled at the DeZavalla Rd. location in Channelview. No compounds were measured above detection levels. Around 1:00pm, the van relocated to the Lynchburg Ferry area due to the southwest winds. Between 1:00pm and 3:00am this morning, only three sample runs detected measurable amounts of benzene, with a peak concentration of 51ppb. The van relocated to Magnolia Ln. in Deer Park around 3:45am due to shifting winds. No benzene detections were measured at this location.

PM2.5 measurements across Houston this morning are in the “good to moderate” range (based on EPA’s AQI scale).

As of the April 5, 2019 7:00 am tank volume report, the volume of liquid wastes from the event are being accumulated in Tanks 100-28(20,380 bbl), Tank 100-31(93,792 bbl), Tank 80-33(39,050 bbl), Tank 80-34(59,853 bbl) and Tank 50-2(39,505 bbl). As of April 4, 2019, the reported total amount of contaminated water recovered was 209,465 bbl. Of this, 89,576 bbl were collected by on-water operations and 127,457 bbl from the tank farm area. The tank farm continues to receive foam.

In the anticipation of heavy rainfall, ITC has stationed three 70 bbl vac trucks along the tank farm and ditch along Tidal Road to collect contaminated water from the tank farm and ditch. In addition, Unified Command has established and approved a safety procedure to halt operations in case of lightning within the operations area.

ITC requested approval for use of Micro-Blaze outside the tank farm.

ITC continued 24-hour flushing of Tucker Bayou. ITC requested approval to bypass outfall 003 and release the non-contact stormwater from the tank farm areas not impacted by the fire to the Tidal Road ditch at the corner of Tidal Road and ITC Easement (marked in bold in attached map). ITC will use a pump and hose to conduct this operation (route highlighted in the attached map) The facility plans to sample on April 5, 2019, from the tank farm's normal discharge point prior to release. This request has been forwarded to TCEQ for review.

The EPA ASPECT aircraft was grounded on April 4, 2019, due to weather conditions. The TAGA vehicle conducted community monitoring downwind of and around the tank farm. No community impacts were detected.

On April 4, 2019, TCEQ received two allegations that were referred to Unified Command concerning a foam-like substance in residential areas of Channelview and east Harris County. Harris County Pollution Control received six complaints of a foam- like substance in residential areas of Channelview and Houston. CTEH is planning to send response teams to observe and collect samples on April 5, 2019.

On April 4, 2019, teams of TCEQ regional investigators and the TCEQ contractor, SWS, continued to conduct odor surveys and air monitoring throughout the community using handheld instruments. There were no readings exceeding action levels set by Unified Command. Community monitoring will continue on April 5, 2019, as weather permits.

During the day on April 4, 2019, water samples were collected at seventeen sites by three TCEQ regional teams. Sampling areas were east of Channelview, as far as the eastern border of Galveston Bay and as far south as Kemah. Eleven sites were sampled by surface water quality monitoring teams and six shore teams along the Gulf side of Galveston Island and Crystal Beach on Bolivar Peninsula. Four sites were sampled by SWS at ITC. The TCEQ is continuing to assess surface water quality sampling data as preliminary and final laboratory results are received. Four Shoreline Cleanup Assessment Technique (SCAT) teams operated throughout Tucker Bayou and the Ship Channel and one Rapid Assessment Team assisted in SCAT activities. TCEQ had one person on a SCAT team on April 4, 2019 and will

have one person on a team today, April 5, 2019.

For April 5 and 6, 2019, EPA will not have an FOSC on the overnight shift at Incident Command; however, one EPA contractor will still be present. An FOSC will resume the overnight shift starting the night of April 7, 2019.

From: Tracy Miller

Sent: Thursday, April 4, 2019 10:43 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 19: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 19

Overnight winds were southerly at 5-10 mph. Winds are expected to be out of the southeast today around 10mph, shifting more SSW with decreasing speeds by midday.

Benzene measurements at stationary monitors remain in the low ppb range. There was one period of elevated benzene measured at HRM #3 Haden Rd between 3:00pm and 6:00pm yesterday with a peak concentration of 14.7 ppb. All downwind monitors are showing benzene concentrations less than 1.0 ppb this morning.

Yesterday and overnight, the GC van sampled at the DeZavalla Rd location in Channelview. Low levels of xylene and toluene (8-17 ppb) were intermittently detected, but no detectable levels of benzene were measured.

PM2.5 measurements across Houston this morning are in the good to moderate

range (based on EPA's AQI scale).

As of the April 4, 2019 7:00 am tank volume report, the volume of liquid wastes from the event are being accumulated in Tanks 50-2 (39,505 bbl), 60-1 (47,205 bbl), 80-33 (37,851 bbl), and 80-34 (61,469 bbl).

At 11:35 pm, an entry team entered the tank farm to open the manway on Tank 80-14 and to put a vacuum hose into the Tank 80-15 manway to remove the remaining liquids. The tank farm continues to receive foam.

As of April 3, 2019, a total of 183,629 bbl of contaminated water has been collected. Of this, 80,920 bbl were collected by on-water operations and 102,709 bbl from the tank farm area.

On April 3, 2019, at approximately 3:00 pm, the flushing of Tucker Bayou began and ended at approximately 7:00 pm. CTEH conducted air monitoring during the flushing operations. There were no detected readings exceeding action levels set by Unified Command during the flushing activities. The flushing water is being applied from Dow's firewater monitor (photo attached). The source water is from the Houston Ship Channel.

The Operations Section of Unified Command began planning and preparing early April 3, 2019 for a potential overnight heavy rainfall. Vac trucks were stationed to assist with water recovery. During the planning, it was reiterated to ITC that outfalls 003 and 002 were not to discharge and the WWTP was not authorized to accept the fire-generated waste. ITC indicated to Unified Command that the facility will need to utilize their stormwater outfalls from the non-impacted areas. The facility will sample any stormwater prior to release, as the outfalls are needed.

The EPA ASPECT aircraft did not conduct flyover operations and the TAGA vehicle did not conduct air monitoring in the area on April 3, 2019.

Four Shoreline Cleanup and Assessment Technique (SCAT) teams operated throughout Tucker Bayou and the Ship Channel and one Rapid Assessment Team (RAT) assisted in SCAT. SCAT teams utilized UAV to identify additional areas that may have been impacted and plan to identify and mark those areas to report to Operations to address. On April 3, 2019, TCEQ participated in a SCAT planning meeting; however, TCEQ did not have any personnel on a team. TCEQ will have one person on a team today, April 4, 2019.

Teams of TCEQ regional investigators and the TCEQ contractor, SWS, continued to conduct odor surveys and air monitoring throughout the community on April 3, 2019 using handheld instruments and reported no readings exceeding action levels set by Unified Command.

During the day on April 3, 2019, water samples were collected at seventeen sites by three TCEQ regional teams. Sampling areas were east of Channelview, as far as the eastern border of Galveston Bay and as far south as Kemah. Eleven sites were sampled by SWQM teams and six by the shore teams along the Gulf side of Galveston Island and Crystal Beach on Bolivar peninsula. Three sites were sampled by the TCEQ contractor SWS at ITC. TCEQ Water Quality Planning Division is continuing to assess surface water quality sampling data as preliminary and final laboratory results are received.

Starting Friday April 5, 2019, EPA will no longer have an FOSC on the overnight shift at Incident Command; however, one EPA contractor will still be present.

From: Jonathan Walling

Sent: Wednesday, April 3, 2019 11:59 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 18: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 18

Overnight winds varied from east to southeast at <5 mph. Winds are expected to be out of the southeast today with speeds increasing to 10-15 mph by midday.

Benzene measurements at stationary monitors continue to remain in the low ppb

range with the highest benzene level measured downwind being a 5.0 ppb at Galena Park during the 11:00pm hour.

Yesterday, the TCEQ monitoring van began sampling at 1809 Center Street. No detectable levels of benzene were measured at this location. At 1:00pm, the van was dispatched to Crosby to assess the plume from the KMCO chemical plant fire. The van set up downwind (wind out of the NE) of the fire location at 14530 FM 2100 in Crosby and sampled from 2:20pm to 8:15pm. No detectable levels of any target compounds were measured. At 8:30pm the van returned to monitor downwind of the ITC incident. Only two sample runs from midnight to 6:00am produced detectable levels of benzene (10ppb @ 12:45am and 25 ppb @ 1:05am).

PM2.5 measurements on the north side of Houston this morning are on the low end of the “moderate-good” range, while measurements on the south side are in the “good” range (based on EPA’s AQI scale).

The tank farm continues to receive foam. As of 7:00 am April 3, 2019, transfer operations at Tanks 80-14 and 80-15 were reported to be complete. Transfer of the contents in Tank 100-28 to Tank 100-15 was completed at 2:20 am April 3, 2019. At approximately 7:00 am April 3, 2019, Unified Command provided an update on the volume of liquid wastes from the event being accumulated in Tanks 50-2 (39,505 bbl), 60-1 (47,205 bbl), 80-33 (35,736 bbl), and 80-34 (59,221 bbl).

Liquids in Tank 100-28 were offloaded to an ocean-going barge to allow room for more storage of product on site. The barge contains approximately 49,000 bbl of contaminated water. A second 30,000-bbl barge is on standby in the San Jacinto River.

As of April 2, 2019, a total of 169,942 bbl of contaminated water has been collected. Of this, 72,703 bbl came from on-water operations and 97,239 bbl from the tank farm area.

Unified Command provided maps showing where waste is currently being stored throughout the facility and at the KSOLV dock.

The EPA ASPECT aircraft began conducting flyover operations at 9:30 am April 2, 2019 at the confluence, downwind in the community, and above the spill site. The TAGA bus was dispatched at 8:30 am April 2, 2019 to collect air quality data north of the facility in the Channelview area.

Teams of TCEQ regional investigators and the TCEQ contractor, SWS, continued to conduct odor surveys and air monitoring throughout the community on April 2, 2019, using handheld instruments and reported no readings exceeding action levels set by the Unified Command.

During the day on April 2, 2019, water samples were collected at seventeen sites by three TCEQ regional teams. Four sites were sampled by the TCEQ contractor SWS at ITC.

The flushing plan for Tucker Bayou was approved by Unified Command and flushing operations will begin on the morning of April 3, 2019.

On April 2, 2019, Unified Command approved ITC's plan to discharge non-contact stormwater from the base oil tank farm adjacent to Tucker Bayou through outfall 005.

Harris County has contracted with Trinity Environmental and Intertek to conduct soil sampling on Tidal Road and parts of Independence Parkway.

At 6:39 am April 3, 2019, the Federal On-Scene Coordinator sent an email to Unified Command and support advocating a reduction in the number of personnel involved in the command function of the response, including re-evaluating command oversight of night operations.

From: Jonathan Walling

Sent: Tuesday, April 2, 2019 12:54 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 17: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 17

Overnight winds were north-northeast <5 mph, turning easterly after midnight. Winds should remain light (5-10 mph) and continue shifting back to the southeast throughout the day.

Benzene measurements at stationary monitors continue to remain in the low ppb range with the highest benzene level measured downwind being a 5.2 ppb at Cesar Chavez during the 4:00am hour.

Yesterday, the TCEQ monitoring van began sampling at 1809 Center Street. Intermittent benzene levels were measured throughout the day with a high reading of 46.9 ppb. The van relocated to Magnolia Ln. around 2:00pm. Measured benzene levels averaged 15 ppb, with a max of 45.6 ppb. After midnight, benzene levels at the Magnolia site decreased to the 5 – 12 ppb range. The van relocated back to 1809 Center Street around 2:45am due to detecting odors in the area. From 3:00am to 5:00am, measured benzene levels ranged from 6 ppb to 41 ppb. No detectable levels of benzene were measured at this location after 5:00am.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale). An ozone action day will be in effect for the Houston area based on weather conditions being conducive to ozone formation.

On April 1, 2019, the facility began transferring hazardous waste from Tank 100-

31 to Tank 100-15 to reduce the volume of Tank 100-31. Piping was laid to begin pumping the contents of Tank 80-10 on April 2, 2019. As of April 1, 2019, Tank 80-14 had been flushed with foam and water and emptied. At approximately 7:00 am April 2, 2019, Unified Command provided an update on the volume of liquid wastes from the event being accumulated in Tanks 50-2 (31,185 bbl), 60-1 (47,205 bbl), 80-33 (34,044 bbl), and 80-34 (57,692 bbl).

The tank farm continues to receive foam. The secondary containment structure has been pumped out and is being maintained to prevent the accumulation of liquids.

To manage rain accumulation, the ditches are being cleaned as needed by vacuum trucks. Efforts on April 1, 2019, focused on a pocket near the cofferdam on Tidal Rd. A vacuum truck unloading area and frac tank manifold is being constructed. Four 500-bbl frac tanks will be connected and will allow four vacuum trucks to unload at the same time.

Flushing of Tucker Bayou on the south side of Tidal Road near the cofferdam and Clean Harbors began on April 1, 2019, using water from Clean Harbors. Eleven 130-bbl vacuum trucks and six 70-bbl vacuum trucks were bringing recovered oily water to tanks 80-33 and 100-31. A device called an oil mat was tested April 1, 2019, in Tucker Bayou and was deemed a successful method of recovering floating hydrocarbons.

Two 30,000-bbl barges are being utilized on the Houston Ship Channel to help store the hazardous material being skimmed from the on-water operations. ITC has staged a 57,000-bbl barge at ITC Dock 8 to receive waste from tanks 80-18, 80-33, 100-28, 100-31, and 100-15 for disposal. At 7:00 am April 2, 2019, Unified Command reported that pumping of the contents of Tank 100-28 into the barge was complete as of 4:50 am April 2, 2019.

As of April 1, 2019, approximately 61,807 bbl of contaminated material had been recovered by the on-water operations team. A total of approximately 92,222 bbl of contaminated material has been removed from the tank farm and ditches. A total of 128 cubic yards of contaminated material (PPE, boom, and absorbent pads) has been collected.

The EPA TAGA vehicle monitored downwind of the site on April 1, 2019. EPA also conducted aerial air monitoring with the ASPECT aircraft on April 1, 2019. No exceedances were reported from these surveys. Both vehicles are scheduled to

survey the area on April 2, 2019.

Teams from TCEQ contractor, SWS, conducted odor surveys and air monitoring throughout the community on April 1, 2019, using handheld instruments and reported no readings of benzene exceeding action levels set by the Unified Command.

Two Shoreline Cleanup and Assessment Technique (SCAT) teams and one Rapid Assessment Team (RAT) were deployed during the day April 1, 2019. SCAT observations confirmed observations from aerial reconnaissance. Areas impacted with floating product included Jacintoport, Old River, Peggy Island and Boscoe. During the day April 1, 2019, water samples were collected at five sites by TCEQ. Water samples from six shoreline sites were collected by a second team. Four sampling teams will conduct water sampling on April 2, 2019. The ITC team will be sampling with the TCEQ contractor, SWS, at ITC. TCEQ Surface Water Quality teams will be sampling east of Channelview, as far as the eastern border of Galveston Bay and as far south as Kemah. An additional shore sampling team will be conducting sampling on the Gulf side of Galveston Island and Crystal Beach on Bolivar peninsula. No RAT is scheduled for today.

ITC requested that they be allowed to discharge non-contact stormwater from the base oil tank farm adjacent to Tucker Bayou through outfall 005. This stormwater would be non-contact stormwater from operations within the facility (outside of the impacted fire areas). The release amounts/flow rates would be controlled, monitored and coordinated with EPA/TCEQ to ensure the recovery efforts on Tucker Bayou are not impacted. The TCEQ has not approved any discharges.

From: Jonathan Walling

Sent: Monday, April 1, 2019 10:34 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 16: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 16

Overnight winds were north-northeast <5 mph. Winds will remain north-northeast 5-10 throughout the day.

Benzene measurements from downwind monitors continue to remain in the low ppb range with no significant benzene spikes recorded.

Yesterday, the TCEQ monitoring van began sampling at the corner of Underwood and Spencer Hwy. No detectable levels of benzene were recorded. The van relocated to Magnolia Ln. around noon where periodic benzene spikes were consistently measured throughout the afternoon with a peak of 242.3 ppb at approximately 3:00pm. Sampling continued at the Magnolia Ln. location with only periodic benzene measurements recorded between 5:00pm and 7:30pm (peak of 117 ppb). At 2:45am, the van relocated to 306 E 1st Street near the Deer Park High School to provide monitoring in an area of reported odors. A benzene peak of 127 ppb was measured at 3:30am, before decreasing to 6 ppb by 5:00am. Based on shifting winds, the van relocated to 1809 Center St at 5:30am. Peak benzene measured at this location was 53.6 ppb.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

As of 7:00 am April 1, 2019, transfer operations at Tanks 80-2, 80-3, 80-7, 80-9, 80-10, 80-12, 80-13, 80-14, and 80-15 were reported to be complete, with approximately 2,207 bbl remaining in Tank 80-10. As of 7:54 am on April 1, 2019, pumping was reported to be active at Tank 80-11 (containing 21,313 bbl).

At approximately 7:00 am April 1, 2019, Unified Command provided an update on the volume of liquid wastes from the event being accumulated in Tanks 50-2 (31,185 bbl), 60-1 (47,205 bbl), 80-33 (29,700 bbl), and 80-34 (46,539 bbl).

The ERC reported that a total of 56,162 bbl of contaminated water have been

recovered from the water and 40,385 bbl have been recovered from the tank farm. Approximately 128 cubic yards of solid waste have been recovered.

An additional 57,000-barrel liquid waste collection barge arrived at 8:15 pm March 31, 2019. This barge will be in addition to the two 30,000-barrel barges in use.

Odors and Benzene odors and detections continued to trigger sporadic shelter-in-place notifications at neighboring industrial facilities. At 1:31 am March 31, 2019, LyondellBasell gave the all clear to its shelter-in-place. Ineos lifted its shelter-in-place at 2:00 am March 31, 2019. Oxyvinyl VCM lifted its shelter-in-place at 2:55 am March 31, 2019 and Oxyvinyl Battleground lifted its shelter-in-place at 3:08 am March 31, 2019. At 10:08 am March 31, 2019, Geo Specialty Chemicals lifted its shelter-in-place. Nouryon Polymer Chemicals Battleground and Geo Specialty Chemicals announced shelter-in-place at approximately 1:40 pm March 31, 2019. Geo Specialty Chemicals cleared its shelter-in-place at approximately 4:00 pm March 31, 2019. The Nouryon facility cleared its shelter-in-place at approximately 5:00 pm March 31, 2019.

The EPA TAGA vehicle monitored downwind of the site on March 31, 2019. EPA also conducted aerial air monitoring with the ASPECT aircraft until 10:00 am March 31, 2019. Between 9:30 am and 9:34 am, the TAGA vehicle recorded readings of 1 ppm at the following intersections: East Blvd and Hwy 225, East Blvd and 13th Street, and East Blvd and Independence Parkway. The ASPECT plane had no detections.

Due to choppy conditions, water operations were not conducted. Air monitoring resources affiliated with those operations were re-directed to land.

Teams of TCEQ regional investigators and TCEQ contractor, SWS, conducted odor surveys and air monitoring on March 31, 2019 using handheld instruments throughout the community. The TCEQ air teams reported no readings of benzene exceeding action levels set by the Unified Command.

Four sampling teams will conduct water sampling on April 1, 2019. The ITC team will be sampling with the TCEQ contractor, SWS, at ITC. Regional SWQM teams will be sampling east of Channelview as far as the eastern border of Galveston Bay and as far south as Kemah. An additional shore sampling team will be conducting sampling on the Gulf side of Galveston Island and Crystal Beach on the Bolivar peninsula.

No TCEQ resources are available for the SCAT teams scheduled for April 1, 2019. No RAT is scheduled for today.

The Harris County Fire Marshal's Office will begin its fire investigation on April 2, 2019. They will control access to the tank farm but operations to remove product and waste from the tank farm and secondary containment area will continue.

From: Tracy Miller

Sent: Sunday, March 31, 2019 12:51 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 15: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 15

Overnight winds were north 10-15 mph. Winds will remain north 10-15 with gusts to 25+mph throughout the day, then turn northeast decreasing to 5-10 mph. There is a small craft advisory for the bay for March 31, 2019.

Overnight and early morning, benzene measurements from downwind monitors remained in the low ppb range with no significant benzene spikes recorded.

Late yesterday afternoon, due to the northerly winds, the TCEQ monitoring vans relocated south of the ITC facility on Magnolia Lane. No detectable levels of benzene were recorded until 10:20pm, when the GC measured 28.0 ppb.

Periodic rain hampered consistent sampling; however, elevated concentrations of benzene were again recorded in the overnight hours. From 1:00 am to 3:00 am, several benzene spikes were measured from 43.0 ppb to 195.9 ppb at the Magnolia Ln site. Around 4:00 am the vans relocated further south to the corner of Underwood and Spencer Hwy. Only one benzene measurement above the detection limit was recorded at this site (10.0 ppb at 5:00am).

PM2.5 measurements across Houston this morning remain in the "good" range (based on EPA's AQI scale).

The City of Pasadena activated its EOC at 1:17 pm March 30, 2019 due to a shift in wind direction.

As of 7:00 am March 31, 2019, transfer operations at Tanks 80-2 and 80-3 were reported to be complete. Liquids in Tank 80-11 were reported as being removed at 749 bbl/hour with 28,581 bbl remaining to be transferred.

As of 7:00 am March 31, 2019, the accumulation of the liquid wastes from the event are being accumulated/stored on-site in Tanks 60-1 (47,205 bbl), 80-34 (35,205 bbl), and 50-2 (31,185 bbl), and Tank 80-33 (21,264).

The EPA TAGA vehicle monitored downwind of the site in the Deer Park and La Porte area until 4:30 pm on March 30, 2019. The TAGA vehicle did not detect any readings above the action levels. EPA's ASPECT did not fly due to cloud coverage. The TAGA vehicle began monitoring at approximately 8:30 am March 31, 2019.

Additional information was obtained about the March 30, 2019, shelter-in-place alert for the VOPAK Terminals facility. The shelter-in-place was lifted at approximately 11:40 am March 30, 2019. Harris County Pollution Control Services provided additional information on facilities east and south of ITC that

had also issued facility shelter-in-place notices. These facilities included Oxy Vinyls Battleground, VCM plants, Lyondell Basell, INEOS, Geo Specialty Chemicals, Nouryon Polymer Chemicals Battleground, and Braskem. The SIP notices were subsequently lifted for Oxy Vinyls Battleground, VCM, and Lyondell Basell. As of this time, no information is available for the status at the other facilities listed.

Teams of TCEQ regional investigators and the TCEQ's contractor, SWS, conducted odor surveys and air monitoring using handheld instruments throughout the community. The TCEQ contractor recorded a 34.55 ppm benzene reading at 4:44 pm March 30, 2019, at 2911 N. Alexander Drive in Baytown. The Region requested the TCEQ contractor to return to the location to confirm the reading. Upon return to the location at 4:57 pm March 30, 2019, the reading was 0 ppm. No other air monitoring readings above the action levels identified by Unified Command were detected during the air monitoring surveys.

There were two air monitoring strike teams (one each for land and water) in operation during the day until 6:00 pm March 30, 2019. No elevated readings were reported during this time. One land strike team was deployed at 7:00 pm March 30, 2019 and reported benzene above action levels at Independence Parkway at Andrews Logistics, just north of a Love's gas station. Benzene was measured at 1.25 ppm and total VOCs were measured at 1.7 ppm.

Two regional surface water monitoring teams and the on-shore team will remain on standby but will not deploy until conditions are safe. TCEQ's oversight of ITC water sampling will continue.

From: Jonathan Walling

Sent: Saturday, March 30, 2019 12:00 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 14: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 14

Overnight winds were south-southeast 5-10 mph. Winds will shift north in the late afternoon today and increase to 15-20 mph with an approaching cold front.

The Channelview monitor continues to detect elevated benzene concentrations in short durations with measurements quickly returning to low ppb levels. The three hours beginning at 10:00pm measured a 53.7, 129.8, and 16.8 ppb, respectively. The 1:00am reading was back down to 0.51 ppb. Benzene levels were in the low ppb range at all other downwind monitors. AECOM restored autoGC operations at Lynchburg yesterday with measurements beginning again at 11:00am.

The TCEQ monitoring vans continued to monitor in the Lakeside Park Estates neighborhood along De Zavalla Rd. Overnight readings were consistent with the benzene spikes at the Channelview monitor. During the 10:00pm hour, benzene measurements began to increase with a peak of 39.0 ppb. The first run of the 11:00pm hour recorded a peak benzene level of 655.35 ppb along with a 1,3-butadiene spike of 66.2 ppb. A TVA reading at this time measured 20 ppm total VOC. After the midnight shift change, TVA measurements at the DeZavalla location showed only background levels of VOC. The vans repositioned 0.3 miles north on Lakeside Dr. Readings at this location were at or below instrument detection limits with a maximum benzene reading of 6.0 ppb.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

As of 3:00 am March 30, 2019, transfer operations at Tanks 80-7, 80-9, 80-10, 80-12, 80-13, 80-14, and 80-15 were reported to be complete. Liquids in Tank 80-11 were reported as being removed at 802 bbl/hour and stored in Tank 80-33.

At 12:10 am March 30, 2019, ITC started pumping from secondary containment

to the wastewater treatment feed tanks 80-34 and 60-1. TCEQ re-emphasized that ITC is to use the tanks for storage only and must dispose of the material as hazardous waste.

At 11:15 pm March 29, 2019, CTEH measured benzene levels of 0.5 ppm to 2.5 ppm on Jacintoport Blvd. ITC issued an E-Notification to the industrial area with a recommended shelter-in-place. At 1:28 am March 30, 2019, VOPAK Terminals issued a shelter-in-place for their facility in response to the E-notification. No information on the status of the VOPAK shelter-in-place was reported as of 7:00 am.

The EPA TAGA vehicle monitored downwind of the site and had three (3) benzene readings above action levels at approximately 2:30 pm March 29, 2019, in the vicinity of Jacintoport Blvd and Sheldon Rd. The hits were 0.75 ppm, 1.2 ppm, and 1.6 ppm. EPA START contractors had one monitoring location on the water above the action level in the Jacintoport area at 2.0 ppm. EPA did not perform aerial air monitoring (ASPECT) due to low cloud cover interfering with monitoring equipment. It will not fly on March 30, 2019 and potentially not on March 31, 2019 for the same reason.

Teams of TCEQ regional investigators and TCEQ's contractor, SWS, conducted odor surveys and air monitoring using handheld instruments throughout the community. No air monitoring readings above the action levels identified by Unified Command were detected during the air monitoring surveys. No odors related to the incident were detected during the surveys.

On March 29, 2019, the TCEQ regional water section collected water samples at 17 locations. An additional four sites were sampled by an ITC contractor. Water section personnel participated on two Rapid Assessment Teams.

TCEQ discussed its comments on Revision 6 of the Waste Management Plan with the Unified Command Environmental Group.

TCEQ submitted its comments as reviewed by EPA on the Water/Foam Sampling Plan to CTEH.

Harris County Office of Emergency Management demobilized the Harris County EOC as of 7:00 pm March 29, 2019.

TCEQ staff will continue to conduct surface water quality sampling on March 30, 2019.

From: Jonathan Walling

Sent: Friday, March 29, 2019 1:44 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 13: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 13

Overnight winds were southeasterly 5-10 mph. Winds will remain southeasterly today with speeds increasing to 10-15 mph in the afternoon.

Stationary monitors continue to detect elevated benzene concentrations in short durations with measurements quickly returning to low ppb levels. The Channelview monitor recorded a 129.98 ppb at 3:00 am. Measured concentrations the next hour were back down in the 3-4 ppb range. Benzene levels were in the low ppb range at all other downwind monitors. The Lynchburg AutoGC is experiencing technical problems which are being addressed by the operator, AECOM, to restore data transmittal from the site.

Yesterday and last night, the TCEQ monitoring van conducted monitoring in the

Lakeside Park Estates neighborhood along De Zavalla Rd. Periodic benzene spikes ranging from 12 – 27 ppb were measured in this area overnight. During the 5:00 am hour, multiple GC runs measured benzene concentrations between 75 ppb and 125 ppb.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

USCG indicated the Houston Ship Channel is open during daylight hours to limited traffic. The San Jacinto River is open to two-way traffic without restriction. The Old River is closed to traffic.

TCEQ, EPA, and ITC representatives conducted an overflight of the impacted areas on March 28, 2019. Oil was observed to have migrated into Carpenters Bayou where previously it had not been observed. Recovery activities are being conducted.

ITC proposed to Unified Command to temporarily remove booms from the mouth of Tucker Bayou to improve flow out of the heavily contaminated bayou towards the channel. This action is to allow residual product to flow into the confluence of the bayou and the Houston Ship Channel to be recovered by skimming vessels.

The contents of Tank 80-13 have been pumped into Tank 80-18. As of 7:00 am March 29, 2019, Tank 80-13 was reported as empty. At 8:27 pm March 28, 2019, ITC contractors opened sump lines from Tanks 80-14 and 80-15 to facilitate flow into the secondary containment and the containment area, then to oil/water separator, then to the wastewater plant storage tanks. The same process was used for Tanks 80-2 and 80-3 earlier in the day.

At 10:00 pm March 28, 2019, the Incident Commander for ITC approached Unified Command with concerns that the secondary containment was close to overflowing due to draining operations and foaming operations on tanks 80-2, 80-3, 80-14, and 80-15. ITC’s stated concerns were that waste levels within the secondary containment were rising faster than could be removed. They are

currently placing the waste into tank 60-1 rather than allowing further release into the ditch, Tucker Bayou, and/or the channel.

Outfall 003 developed a leak due to a seal failure, releasing water and foam into the ditch for approximately 30 minutes. The leak was repaired and the discharge was stopped. There are three vacuum trucks removing material from the ditch and five vacuum trucks are removing material from Tucker Bayou. Material recovered from both sources is being taken to Tank 100-31.

As of 8:30 pm, approximately 36,611 bbls. of material were recovered from on-water operations. As of 6:00 pm March 28, 2019, approximately 40,385 bbls material and 128 cubic yards of contaminated solids (personal protective equipment, booms, and absorbent pads) had been recovered from the tank farm.

Benzene levels above 1 ppm were not detected in the community during the overnight handheld monitoring activities. Wind was from the southeast. CTEH reported detecting 1.02 ppm benzene at 16402 Jacintoport Blvd. and the readings were confirmed by the multi-media air monitoring strike team at 12:35 am March 29, 2019. At 12:50 am March 29, 2019, CTEH had benzene readings of 0.8 ppm to 1.02 ppm in the community, at the corner of Sheldon Road and Market St. The multi-media air monitoring strike team responded and had no detections at that location.

ASPECT flew at 9:00 am March 28, 2019, over the tank farm and downwind of the facility. No significant readings were detected readings. EPA has not confirmed if the ASPECT flyover operations will resume next operational shift due to forecasted rain and cloud cover.

The TAGA bus conducted monitoring from approximately 8:30 am to 4:30 pm March 28, 2019 downwind of the facility and did not detect benzene.

At 8:45 am March 28, 2019 TCEQ regional office staff and contractors detected benzene at 1.5 ppm and VOC at 0.7 ppm on the Tidal Rd bridge over Tucker

Bayou. CTEH re-monitored the location at 10:38 am March 28, 2019 with no VOC detected and at 11:19 am March 28, 2019, no benzene was detected. At 11:30 March 28, 2019, the TCEQ contractor attempted to take water samples at the Tidal Rd Gate 13 sample location and under the Tidal Rd bridge over Tucker Bayou. Neither location could be sampled due to high levels of benzene. At the Gate 13 location, the contractor stated there was heavy foam and a benzene reading of 13 ppm. At the location under the bridge, the benzene reading was 100 ppm. CTEH monitored at Gate 13 at 11:33 am March 28, 2019 and obtained a reading of 9.5 ppm benzene. CTEH did not send personnel under the bridge to conduct air monitoring.

TCEQ e-mailed updated comments on the water sampling plan to EPA for review and provided responsive information to ITC.

In anticipation of forecasted precipitation on March 29 and 30, 2019, Unified Command discussed plans for managing stormwater at the ITC Deer Park facility. Stormwater from unimpacted areas of ITC will route through normal stormwater conveyances, including Tucker Bayou. Stormwater from the impacted tank farm area will be routed to tanks in the WWTP for storage. The WWTP is not in operation (e.g. receiving influent/producing effluent).

TCEQ staff continued to conduct surface water quality sampling on March 28, 2019.

Teams of TCEQ regional investigators and TCEQ's contractor, SWS, conducted odor surveys and air monitoring using handheld instruments throughout the community. No air monitoring readings above the action levels identified by Unified Command were detected during the air monitoring surveys. No odors were detected during the surveys.

Harris County Office of Emergency Management downgraded the activation level of the Harris County EOC to Level III (Increased Readiness) as of 4:57 pm March 28, 2019.

The Civil Support Team will demobilize the morning of Friday, March 29, 2019. SWS personnel will serve as the TCEQ presence on the Air Monitoring Strike Teams.

TCEQ has been asked to provide a representative to serve on the Incident Command Environmental Unit. This request is under review by regional management.

From: Jonathan Walling

Sent: Thursday, March 28, 2019 11:37 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 12: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 12

Overnight winds were southeasterly < 5mph. Winds are expected to remain southeasterly today with speeds increasing to 10-15 mph with gusts to 20 mph.

Stationary monitors continue to detect elevated benzene concentrations when directly downwind of the ITC facility. Yesterday from 12:00 pm thru 3:00 pm with winds from the ESE, HRM Haden Road monitor measured benzene in the 6-12 ppb range. During the 11:00 pm and 12:00 am hours, with winds more SE, the Channelview monitor measured benzene levels of 12.5 and 7.4 ppb. Periods of elevated readings at these monitors are short in duration, with measurements returning to low ppb levels.

Yesterday, the TCEQ monitoring van conducted monitoring at the corner of Center and X Streets until midday when winds began to shift to the SE. No detectable levels of benzene were measured at this location. The van relocated

at noon to the north side of the Ship Channel in the Lakeside Park Estates neighborhood along De Zavalla Rd. Periodic benzene spikes ranging from 7.4 – 17.5 ppb were measured in this area during the afternoon. Overnight, the van remained at the De Zavalla Rd location due to the SE winds. From midnight thru 5:00am, measured benzene concentrations averaged 17 ppb, with a max of 25 ppb.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

ITC has continued to spray foam within the secondary containment area of the tank farm for approximately 20 minutes every 1 to 2 hours.

The USCG has deployed approximately 92,840 feet of boom in several locations.

At 10:47 am March 27, 2019, a TCEQ staff conducting surface water sampling reported a failing boom near Channel Marker 121, which is near the San Jacinto Battleground Monument. Black water and foam were observed on the shoreline in the area. The TCEQ notified the USCG of the boom failure.

The USCG presented a plan to Unified Command to dewater the vessel Texas Responder to provide capacity for recovered organics. The plan was disapproved by both TCEQ and EPA since the re-entry of contaminated waters is prohibited by rule [e.g. CERCLA/Clean Water Act (CWA)]. The entity has been informed that all liquids collected during the surface water skimming activities and placed into collection vessel (barge) must be disposed of in accordance with state and federal regulations.

Pumping operations to remove product from Tanks 80-7, 80-9, 80-10, 80-12, 80-14, and 80-15 were reported as complete as of 8:24 am March 28, 2019.

EPA performed air monitoring with the ASPECT aircraft starting at 8:45 am March

27, 2019 above and downwind of the ITC tank farm with no detections.

Air monitoring by USCG personnel in the area around ITC Dock 4 showed levels of benzene above the industrial action level (0.5 ppm). Air monitoring teams have not detected benzene outside of the areas around the 2nd 80's Tank Farm and ITC Dock 4 during this operational period. At 9:45 am March 27, 2019, TCEQ contractors detected benzene at 2 ppm in the parking lot next to Tidal Road Bridge where it crosses Tucker Bayou. At 1:15 pm March 27, 2019, the contractor re-monitored the same area and detected less than 0.5 ppm benzene in the parking lot, 7 to 9 ppm benzene towards the nearby ditch, and 2 ppm benzene in the ditch.

Two multi-agency air monitoring strike teams were formed for safety in the working areas, one land team and one water team. Due to the potential need for respiratory protection, the National Guard's 6th Civil Support Team (6 CST) will be serving as the TCEQ representative on the strike teams.

The multi-agency strike team was sent to Houston Fuel Oil Terminal Dock 3 at 11:42 pm March 27, 2019 to investigate a complaint about odors. The team observed material on the water and obtained a reading of 0.05 ppm benzene. The initial call came to Unified Command from Kirby Marine stating that a tug in the area had detected odors. No air monitoring was conducted by Kirby Marine.

The strike team (land), CTEH, and TCEQ regional office staff continued monitoring for VOC and benzene in the communities surrounding the ITC site. The TCEQ teams have been stationed to respond to complaints and reports of air quality readings above action levels. There were no community detections for benzene during the current reporting period.

A Natural Resource Trustee representative for the TCEQ visited the site March 27, 2019. The TCEQ, GLO, and TPWD will be conducting a Natural Resource Damage Assessment (NRDA) on state entrusted resources.

A flyover was conducted by ITC contractor, Cardno, to assess the current status of material in Tucker Bayou, Houston Ship Channel, and surrounding areas. TCEQ and GLO staff participated and observed current operations near Tucker

Bayou.

The USCG has recovered approximately 24,364 barrels of material from on-water operations. Approximately 35,724 barrels of material from the tank farm have been recovered. As of 12:55 am March 28, 2019, cleanup operations have generated approximately 128 cubic yards of solid waste (PPE, debris, and contaminated booms), which is being stored on site at ITC in a roll-off box.

Surface water quality monitoring continues to be conducted in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

From: Jonathan Walling

Sent: Wednesday, March 27, 2019 1:47 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 11: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 11

Overnight winds were north to easterly around 5mph. Winds are expected to be easterly, then shift back southeast by afternoon today.

Overnight, benzene measurements from downwind monitors remained in the low ppb range with one hourly peak of 8.73 ppb during the 8:00 pm hour at the Deer Park #2 monitoring station.

On March 26, 2019, the TCEQ monitoring van conducted measurements throughout the day at the corner of Center and X Streets. Periodic benzene spikes were measured in this area during the late afternoon with a peak of 86 ppb around 9:45pm. Overnight as winds shifted more easterly, the van staff scouted

neighborhoods west of the facility surveying for odors that could indicate elevated VOCs. Nothing was detected as far west as Galena Park. The van returned to the Center and X Street location at 4:00 am on March 27, 2019. No detectable levels of benzene have been measured since that time.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

ITC has continued to spray foam within the secondary containment area of the tank farm every hour for approximately 20 minutes.

USCG has opened the Houston Ship Channel to one-way traffic during daylight hours and the San Jacinto River to two-way traffic during daylight hours. Transport through the Houston Ship Channel and the San Jacinto River is being directed by the Port of Houston Authority (Captain of the Port). Old River to Carpenters Bayou remains closed to all traffic.

ITC contractors discovered two dead fish near ITC’s Dock 4 on March 26, 2019 and approximately 12 fish were discovered near Dock 4 on March 25, 2019 but not reported until March 26, 2019. TPWD has been informed of the fish kill. A wildlife observer has been assigned to Dock 4 to document any impact to wildlife, including fish. Contractors will collect dead fish to provide to TPWD.

Foam is continuing to be applied to Tanks 80-2, 80-3, and 80-5 to reduce benzene emissions. Tank 80-7 has been emptied of product and only contains a layer of foam. Tanks 80-10, 80-14, and 80-15 are empty. Tank 80-13 is being pumped at 123 bbl/hr to Tank 80-18. Tank 80-13 contained 51,671 bbl of liquid as of 7:00 am March 27, 2019.

CTEH continues to provide hourly updates to the Unified Command from its air monitoring operations. CTEH has reported detections of benzene above action levels in the industrial area around the facility during this reporting period. EPA START contractors and TCEQ air monitoring teams have reported no detections of

benzene or VOCs above action levels in the community, with the exception of one unverified reading.

Teams of TCEQ regional investigators and TCEQ's contractor, SWS, conducted odor surveys and air monitoring using handheld instruments throughout the community. At approximately 8:57 pm to 9:02 pm on March 26, 2019, SWS detected a benzene reading of 1.00 ppm at a north-south utility right of way intersecting 2168 E. Pasadena Boulevard. In addition, a sweet paint odor was also detected. Between 9:31 to 9:41 pm on March 26, 2019, SWS detected a benzene reading of 0.50 ppm at 2886 Luella Ave., and a very slight sweet paint odor was also detected. These readings were reported to Unified Command. CTEH was promptly dispatched to conduct monitoring in the same area and had no detections.

No other air monitoring readings above the action levels identified by Unified Command were detected during the air monitoring surveys. Other odors detected during the surveys appeared to be unrelated (e.g. garbage odor).

Contractor teams are currently using one skimmer and two vacuum trucks to recover liquids from Tucker Bayou for transfer to Tank 80-18. Contractor USA Environmental is using six vacuum trucks to recover liquids from the ditches surrounding the 2nd 80's tank farm to pump into Tank 100-28.

Two flyovers were conducted March 26, 2019. USCG/NOAA performed a flyover from 11:30 am to 01:30 pm to assess shoreline impacts. The flyover noted several pockets of material that had not been addressed by USCG or ITC, including the San Jacinto Battleground State Historic Site and Old River Oxbow. USCG was made aware of these areas. Approximately 56,200 feet of boom and 2,640 feet of ocean boom has been deployed as of 1:00 pm March 26, 2019 in the Houston Ship Channel and Tucker Bayou. Harris County Sheriff's Office also conducted a flyover early afternoon (~ 2 pm) over the tank farm and Tucker Bayou and Channel confluence. Product was observed on Tucker Bayou. TCEQ staff participated in flights conducted by USCG and the Sheriff's Office.

ITC is discharging from the impacted tank battery through Outfall 003

(stormwater outfall). The discharge goes to the stormwater ditches; which are currently blocked to avoid discharge into the Tucker Bayou. As noted above, liquids in the stormwater ditch are being recovered and placed in Tank 100-28. According to ITC, the facility has not been discharging through Outfall 002 since March 13, 2019, when, as part of standard operations to better manage chemical oxygen demand (COD), the feed tanks (Tanks 60-1 and 80-34) were shifted to re-circulating mode. The tanks lost power on the evening of March 17, 2019 and power has not been restored. With loss of power, there is no flow to the next treatment units within the wastewater treatment plant (WWTP). ITC is supplying the microorganisms in the WWTP responsible for treatment with nutrients to maintain stability of the system. Information regarding the collection system and flow toward the plant has been requested overnight and the information is pending.

ITC personnel were reminded that approval from the TCEQ must be obtained prior to discharging wastewater from Outfall 002.

ITC provided TCEQ a copy of its Emergency Response Plan and Facility Response Plan on March 26, 2019. The Surface Water Sampling Plan for the event was provided for review. EPA has provided initial comments; TCEQ comments will be provided to ITC today.

Surface water quality monitoring continues to be conducted in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

From: Jonathan Walling

Sent: Tuesday, March 26, 2019 12:42 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 10: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 10

Overnight winds were out of the north at <5mph. Winds are expected to remain northeasterly 5-10 mph throughout the day, then turn easterly by Wednesday.

Overnight, benzene measurements from the Deer Park #2 monitoring station, directly downwind of the ITC facility were in the 1-5 ppb range.

On March 25, 2019, the TCEQ monitoring van conducted measurements in Baytown off Brownwood Drive until late afternoon. Periodic low level measurements of benzene were measured in this area. The van relocated south of the ITC facility at the corner of Underwood Rd. and Spencer Hwy. due to winds shifting to the north. No detectable levels of benzene have been measured in this area. Overnight the van stayed south of Hwy. 225, relocating several times in neighborhoods along X Street, between Center St. and Independence Parkway, in an attempt to identify VOC plumes associated with detected odors. The highest detected benzene in this area was in the 9 ppb range. At 5:30 am this morning, the van relocated to the corner of Center Street and X Street due to strong odors coming across neighborhoods in that area. Benzene measurements have ranged from 6 – 15 ppb.

PM2.5 measurements across Houston this morning remain in the “good” range (based on EPA’s AQI scale).

ITC has continued to spray foam within the secondary containment area of the tank farm every hour for approximately 10 to 25 minutes.

CTEH reported that as of March 25, 2019, it has deployed 100 hand-held air monitoring units. TCEQ contractors detected 13 ppm benzene at 1:30 pm March 25, 2019 immediately west of the tank farm at Tidal Road and Tucker Bayou Bridge. The information was reported to Unified Command.

EPA reported that the ASPECT plane flew south of the incident area on March 25, 2019 and collected six data points as of 2:54 pm March 25, 2019 with no detection.

The EPA START contractor had one team in the field overnight March 25 - 26, 2019 conducting air monitoring downwind of ITC in Deer Park and Pasadena. The contractor reported no detections of benzene or VOCs.

An entry team was used to open valves on Tanks 80-10 and 80-14. This will enable ITC to pump the contents from the bottom of the tanks into Tank 80-18.

The contents of Tanks 80-7 and 80-14 are being transferred to Tank 80-18 with a combined flow rate of approximately 1,000 bbl per hour. As of 3:00 am March 26, 2019, approximately 4,461 bbl remain in Tank 80-7, 260 bbl in Tank 80-14, and 48,985 bbl in Tank 80-18.

USCG has deployed 46,270 feet of boom as of 11:00 pm March 25, 2019. USCG has requested an additional 7,200 feet of boom. As of 11:00 pm March 25, 2019, there is a reserve of 28,600 feet of boom.

USCG will be opening the San Jacinto River for two-way traffic during daylight hours starting today, March 26, 2019. Access to the affected area will be restricted with booms.

During the afternoon on March 25, 2019, ITC pumped liquids from ditches surrounding the facility leading to Tucker Bayou using vacuum trucks. The vacuum trucks unloaded the liquid into a frac tank which then pumped the liquid into Tank 100-28. Five vacuum trucks were being utilized for this operation. Tucker Bayou is being remediated using skimmers and the material is being pumped into vacuum trucks. The collected material is being pumped into Tank 100-28. Six vacuum trucks are dedicated to the Tucker Bayou operation.

TCEQ provided input to Unified Command on comments on March 25, 2019 on a draft Waste Management Plan prepared by CTEH for ITC.

Teams of TCEQ regional investigators and contractor NRC conducted odor surveys and air monitoring using handheld instruments throughout the community. Periodic detection of VOCs at background levels, with no benzene detected. Odors (e.g., sulfur/exhaust) unrelated to the incident were detected.

TCEQ regional investigators and TCEQ's contractor, SWS, conducted water quality sampling activities from 9:40 am to 2:25 pm on March 25, 2019. Water samples were collected on Tucker Bayou, upstream of Outfall 002 and on the west shoreline of Tucker Bayou, under the Tidal Road bridge.

Surface water quality monitoring continues to be conducted in northern Galveston Bay, as well as shoreline sampling on Galveston Island.

From: Jonathan Walling

Sent: Monday, March 25, 2019 10:46 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 9: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 9

Overnight winds were out of the southeast around 10 mph, shifting to the southwest-west at 5-10 mph around 3:00 am. Winds are expected to be light and westerly throughout the day, then turn northerly by evening.

Overnight, benzene measurements at downwind monitoring stations (Lynchburg Ferry, Channelview, and HRM Haden Road) remained in the low ppb range. A

benzene spike of 176.1 ppb was recorded at Lynchburg Ferry during the 2:00 am hour when winds shifted from southeast to southwest. Readings during 3:00 am and 4:00 am showed concentrations decreasing to 33 ppb, then 5 ppb.

On March 24, 2019, TCEQ monitoring vans conducted measurements along Jacintoport Blvd. until approximately 1:30 pm. The vans periodically measured benzene in this area with highs in the 80 ppb range. At 1:30 pm the vans relocated to the corner of DeZavalla Rd. and Lakeside Dr. in the Lakeside Park Estates area. Daytime measurements in this area were low. Overnight benzene concentrations in this area averaged 28 ppb, with a max value of 62 ppb. At 3:30 am on March 25, 2019, the vans relocated to Brownwood Dr. in Baytown due to winds shifting from the southwest to west. No detectable levels of benzene have been measured in this area.

PM2.5 measurements across Houston this morning are in the “good” range (based on EPA’s AQI scale).

ITC is maintaining two feet of foam within the secondary containment to minimize emissions and reduce the risk of reignition.

Unified Command directed that entities conducting air monitoring are to report exceedances of action levels to Unified Command. An Air Sampling Plan developed by CTEH was submitted to Unified Command on March 23, 2019, that define applicable action levels for measured benzene concentrations. A portal is being set up for Unified Command to be able to access the action level alerts sent by the monitoring entities. The EPA did not conduct ASPECT monitoring Sunday, March 24, 2019, due to low cloud cover.

In the work area around the site, 13 readings of butadiene were detected by CTEH at concentrations between 0.08 and 1.35 ppm as of approximately 9:15 pm March 24, 2019. Butadiene in these concentrations will be odorous, but these readings are below the Air Monitoring Comparison Values.

News outlets reported that as of 10:00 pm March 24, 2019, all area schools closed due to the incident will resume regular classes on Monday March 25,

2019. The Baytown Office of Emergency Management decided to keep Baytown parks closed.

ITC is using infrared cameras to see vapors coming off tanks and to determine how much material remains in each tank. ITC's contractor, The Response Group is updating this information every 4 hours to show the changes in tank levels.

Tanks 80-14, 80-07, and 80-11 are continuing to be pumped down to other tanks on-site unaffected by this incident.

Tank 100-28 has received approximately 33,912 bbl of firewater mixture from Tucker Bayou, the ditch, and secondary containment as of 7:00 am March 25, 2019.

Standing liquids have been removed from the east (higher) side of the containment area. The tank farm was built at a slope, so liquids still remain in low points within the secondary containment.

Discharge from the site is being contained within the boomed areas downstream. Any observations of concern identified by USCG during drone or helicopter flyovers are being reported and assessed. A total of approximately 1,429 bbl of oily water mixture were recovered Saturday, March 23, 2019, from the Houston Ship Channel/Buffalo Bayou by USCG. Tucker Bayou operations continue. As of 12:45 am March 25, 2019, no spills have been observed by USCG on the Houston Ship Channel downstream of Patrick Bayou. USCG worked on recovering a 60 x 60 ft pocket of material that was found in the Peggy Lake area.

ITC has stated that the ditch is almost dry, but vacuum trucks will be used to continue to remove liquids.

ITC has placed two roll-off boxes and vacuum trucks with skimmed water located at the K-Solv facility near its docks to collect waste from ship channel cleanup. K-

Solv has requested ITC to remove the waste because they are at capacity for their dock.

From: Jonathan Walling

Sent: Sunday, March 24, 2019 10:46 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 8: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 8

Overnight winds were out of the southeast around 10 mph, shifting to the east at 5 mph around 3:00 am. Winds are expected to return southeasterly today and increase to 10 mph after noon.

Overnight, benzene measurements at the Lynchburg Ferry and Channelview stationary monitors remained in the low ppb range. An elevated benzene reading of 13 ppb was measured during the 3:00 am hour at the HRM Haden Road site west of the ITC facility. Subsequent readings from 4:00am-6:00 am decreased to the 5-7 ppb range.

On March 23, 2019, monitoring vans conducted measurements along Jacintoport Blvd. throughout the day. The vans periodically measured benzene in the 10 ppb range. During the 4:00 am hour, the vans collected three subsequent benzene readings of 80, 114, and 90 ppb while positioned along Jacintoport Blvd, 0.3 miles east of Sheldon Rd. Van operators also detected moderate to strong odors characterized as chemical and VOC-like at this location and noted mild headaches. The vans were then relocated further east along Jacintoport Rd (0.6 miles east of Sheldon Rd) to further assess the plume. The first reading at this location measured benzene in the 15 ppb range.

PM2.5 measurements across Houston this morning are in the “good” range (based on EPA’s AQI scale).

US Pump and Fire arrived on site on March 23, 2019 and staged additional foam and firefighting equipment. There were 155 drums and 159 totes of foam staged with 150 additional totes en route to arrive on March 24, 2019. Channel Industries Mutual Aid (CIMA) was released from Unified Command on March 23, 2019, to focus on other events.

As of 3:14 pm on March 23, 2019, operations at Tank 80-007 had resumed, pumping the material (pygas) into Tank 80-018 at a rate of approximately 1,688 barrels per hour. As of 2:40 am on March 24, 2019, approximately 12,600 barrels had been transferred from Tank 80-007 to Tank 80-018. Operations at Tank 80-007 were stopped due to a blockage on the pump at 2:00 am on March 24, 2019. A submersible pump was being used to remove the contents of Tanks 80-002, 80-003, and 80-005. At 4:35 pm on March 23, 2019, pumping of the contents of the secondary containment structure to Tank 100-28 began at a rate of 88 barrels per hour. As of 10:45 pm on March 23, 2019, approximately 1 inch of liquid remained in the secondary containment. ITC contractor, TNT, has staged equipment to pump out the contents of Tanks 80-014 and 80-015 during the day on March 24, 2019 once pumping from Tank 80-007 has been completed. A 2-foot foam blanket is being sprayed on the tank farm for twenty minutes every hour.

High VOC readings were reported in the dock areas where workers are working on remediating these areas. It was determined that workers will be required to use SCBA if working at water level. At 5:30 am on March 24, 2019, Dow activated a shelter-in-place in response to a recorded reading of 7 ppm benzene and 7.62 ppm benzene recorded by the Port of Houston Authority.

At a Unified Command air monitoring meeting conducted at 8:00 am on March 23, 2019, all entities described their air monitoring capabilities and discussed a system to share the information with Unified Command.

EPA reported that the ASPECT plane will conduct a flight at 9:00 am March 24, 2019 and will fly over the tank farm and downwind in the residential areas. The TAGA bus began operating downwind of the tank farm at approximately 8:30 am March 24, 2019. CTEH is continuing to conduct real-time air monitoring for benzene and VOCs in operational areas as well as in the community. EPA has two teams of START contractors conducting air monitoring. TCEQ Houston Region is deploying three teams to conduct air monitoring and perform odor surveys. Since the last report, the TCEQ regional teams have not documented any significant readings of VOC or benzene in their survey areas. TCEQ contractor, NRC, reported two benzene readings above action levels: 0.85 ppm at approximately 9:30 pm on March 23, 2019 at 16396 Jacintoport Blvd and 0.75 ppm at approximately 1:00 am on March 24, 2019 at 946 South Sheldon Road. The Hazmat Group (Houston Fire, Texas National Guard 6th Civil Support Team, Harris County Fire Marshal's Office, Texas Intrastate Fire Mutual Aid System) will deploy four two-person teams in the area to take readings and report levels to Harris County EOC. Two CTEH personnel and one Marine Spill Response Corporation (MSRC) Tech will conduct monitoring on the deck of the oil spill response vessels. Harris County Pollution Control will conduct roving monitoring along Tidal Rd.

The US Coast Guard (USCG) reported that the Houston Ship Channel remains closed due to the foam mixture present in the channel. It will not be reopened before air monitoring confirms safe action levels. The USCG Strike Team arrived on March 23, 2019 to assist with the cleanup of the bayou and ship channel, in an attempt to open a portion of the ship channel. Unmanned aerial vehicles (UAVs) are being used to conduct visual observations in the channel.

Remediation is being conducted in the drainage ditch which caught fire on March 22, 2109. Approximately 2,000 barrels of foam mixture, fire water and petrochemicals have been removed from Tucker Bayou. A draft Waste Treatment Plan was provided to TCEQ providing for recovered contaminated water to be pumped to wastewater tanks 100-28, 80-18, and other portable containers. According to the plan, these wastewaters would be treated via the on-site WWTP and discharged under the TPDES permit or sent off-site for appropriate disposal, according to the plan. At 4:30 am on March 24, 2019, TCEQ requested additional information on waste storage locations from ITC. ITC was informed that if stored waste is not at a transfer site or a permitted location an alternative location on-site may be needed. ITC has secured two 30,000-barrel barges for disposal purposes.

The Texas Historical Commission provided a map showing the locations of archaeological sites at risk of impact by water operations to TCEQ. The information was forwarded to Unified Command and the USCG by TCEQ.

On March 23, 2019, the Operations section of Unified Command was divided into two branches, land operations and water operations. The area around the incident was divided into five geographical divisions.

On March 23, 2019, USCG overflight reported most of the floating material remained near Tucker Bayou on the north side of the ship channel.

At 8:30 pm on March 23, 2019, EPA delivered an Administrative Order under the Clean Water Act to ITC representatives.

The DECON plan was presented to Unified Command by The Response Group. The EPA requested that the plan be separated into a land decon plan and a vessel decon plan. The vessel decon plan was approved by Unified Command at 11:30 pm on March 23, 2019.

From: Tracy Miller

Sent: Saturday, March 23, 2019 12:00 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 7: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 7

The priorities established by Unified Command during an operations meeting on March 22, 2019 at 7:40 p.m. were to remediate impacted ditches, rebuild the

dike wall that collapsed on March 22, 2019 at approximately 12:00 pm, and resume pumping material from Tank 80-007 to Tank 80-018. Vacuum trucks continued to be used to remove contaminants from Tucker Bayou throughout the night; however, no overnight remediation operations were planned for the Houston Ship Channel. The U.S. Coast Guard National Strike Team is being dispatched to supervise remediation efforts pertaining to the ship channel, and is expected to arrive Saturday afternoon, March 23, 2019.

ITC reported that the dirt placed in the drainage ditch as a temporary berm was ineffective in containing liquids. ITC used a drone equipped with an Infra-Red (IR) camera to assess the area and to determine the volume of product in Tank 80-007. It was determined that Tank 80-007 had approximately 20,000 barrels of product (pygas) remaining. ITC has stated that pumping of the contents of Tank 80-007 to Tank 80-018 will begin at approximately 11:15 am Saturday morning, March 23, 2019. Additional firefighting equipment will be staged before pumping begins.

The Incident Commander reported that additional foam totes were being deployed and were in route to the site. Once the totes arrive on site, a total of approximately 200 totes of foam will be available. The Deputy Incident Commander indicated that foam was continuously being dispersed every 30 to 40 minutes throughout the tank farm and that the containment wall had been rebuilt. There are plans to make improvements to the containment wall throughout the day Saturday, March 23, 2019.

Throughout the overnight operational period, multiple teams with air monitoring equipment were dispatched throughout the area. Teams of TCEQ regional investigators and NRC conducted odor surveys and air monitoring using handheld instruments throughout the community on March 22, 2019 and into March 23, 2019. No significant readings were detected. At 12:25 am, EPA START reported no significant readings of benzene in the Lynchburg area. CTEH reported a fence line (Independence Parkway and Tidal Road) benzene reading of 25 ppm at 3:29 am Saturday, March 23, 2019. At 4:56 am Saturday, March 23, 2019, a Port of Houston fireboat reported readings of 10 ppm benzene and 50 ppm of VOC at Care Terminal located at 16520 Peninsula Street, Houston.

Overnight, benzene measurements across all stationary monitors remained in the low ppb range. There was one elevated reading of 26.8 ppb at Channelview during the 6:00 pm hour with concentrations dropping back down to the low ppb range for subsequent hourly measurements.

The monitoring vans relocated along Jacintoport Blvd from 7:00 – 9:00 pm where they had multiple benzene readings in the 10 ppb range. At 10:00 pm, the vans relocated to the Lynchburg Ferry area due to shifting winds. No detectable benzene levels were measured at this location.

On March 22, 2019, The EPA ASPECT plane measured levels of isoprene (0.66 – 4.09 ppm) during one of the afternoon flights in the area surrounding the ITC site. The odor-based Air Monitoring Comparison Value (AMCV) is 0.048 ppm. The health-based AMCV is 1.4 ppm. None of the isoprene readings at the TCEQ stationary monitors in the area have measured above 0.0014 ppm at this time.

From: Jonathan Walling

Sent: Friday, March 22, 2019 8:35 PM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 6: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 6

On March 22, 2019, ITC received the equipment part to pump the contents of Tank 80-007 to Tank 80-018. ITC began the transfer operation but was interrupted three times due to three different events; a pump leak, a dike breach, and tank fires.

EPA and USCG began water sampling at approximately 10:00 am on March 22, 2019, at the confluence of Tucker Bayou and the ship channel.

TCEQ and Cardno (ITC contractor) conducted shoreline assessment along the ship channel.

During this operational period, ITC used vacuum trucks in the morning to collect the mixture of foam, firefighting water, and petrochemicals. from the dike to transfer into a wastewater tank, Tank 100-028. At approximately 10:30 am on March 22, 2019, ITC noticed that the dike wall had some leaks, and at approximately 12:00 pm, the dike wall (secondary containment) collapsed. The release is estimated to be between 1,680,000 to 3,360,000 gallons of a mixture of foam, firefighting water, and petrochemicals. The mixture reached a drainage ditch along Tidal Road, and eventually reached the Houston Ship Channel. As a precautionary measure, at approximately 12:05 pm, the USCG closed a portion of the Houston Ship Channel between Dow (Tucker Bayou) and the San Jacinto Monument to Crystal Bay, in response to the breach of the tank farm secondary containment wall.

EPA flew the ASPECT plane over the site and sent the TAGA bus from Deer Park to the San Jacinto Area.

Teams of TCEQ regional investigators and NRC conducted odor surveys and air monitoring using handheld instruments throughout the community during this operating period. No significant readings were detected.

On Friday, March 22, 2019 at approximately 3:30 pm, multiple tanks (Tanks 80-002, 80-003, and 80-005) in the west side of the ITC Deer Park site containment area re-ignited. EPA continued to monitor with the TAGA bus. At approximately 3:50 pm, the drainage ditch caught fire. Tidal Road and Independence Parkway were closed. At approximately 4:00 pm, the TCEQ Monitoring Division van, located at Jacintoport International Terminals North West of ITC across the Ship Channel, reported elevated levels of total VOC and strong odors. The van measured a reading of 207 ppb benzene and 35 ppm total VOC in this area.

ITC applied foam to the tanks on fire and the drainage ditch. A dry chemical

powder was also used on the tank area. At approximately 4:29 pm, the ditch and tanks fires were extinguished but a grass fire began at approximately 4:36 pm and was extinguished at 5:15 pm. EPA reported TAGA readings of 1 ppm of benzene on Peninsula Street, near Buffalo Bayou.

On March 22, 2019, on behalf of the TCEQ, the Texas Attorney General filed a Petition and Application for Injunctive Relief in the District Court of Travis County against ITC, for violations of the Texas Clean Air Act.

From: Jonathan Walling

Sent: Friday, March 22, 2019 10:47 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 5: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 5

Overnight winds were out of the south-southwest around 5 mph, shifting to the west between 3:00 am and 4:00 pm. Winds are expected to be light and variable until late morning today when they should settle out of the SE around 5 mph.

Overnight, benzene measurements at the Lynchburg Ferry and Deer Park #2 CAMs were in the low ppb range. There was one elevated reading of 39.56 ppb at the Lynchburg Ferry CAMs during the 8:00 pm hour with concentrations dropping back down to the 4.0-5.0 ppb range for the subsequent hourly measurements.

PM2.5 measurements across Houston this morning continue to be in the moderate range (based on EPA's AQI scale).

An ozone action day has been forecast for the Houston and Beaumont areas for Friday, March 21st due to an increase in incoming background ozone in the wake of the departing cold front combined with afternoon sun and light winds.

ITC has contracted with The Response Group to develop and direct an Incident Action Plan.

Foam is being added to all impacted tanks and the secondary containment area. ITC is awaiting arrival of an equipment part to pump the contents of tank 80-007 into tank 80-018. The part is expected to arrive on March 22, 2019. Once this operation begins, the pump will transfer approximately 1400 barrels an hour, and the operation is expected to take approximately 8 to 9 hours.

The shelter-in-place recommendations in the cities of Deer Park and Galena Park were lifted at approximately 11:40 am Thursday, March 21, 2019. CTEH continued to conduct air monitoring in the Deer Park area where the shelter-in-place was enacted. From 4:00 am to 9:30 am on March 21, 2019, the average detection levels were 2.7 ppm benzene and 4.3 ppm VOCs in this area. TCEQ, EPA, ITC, and Deer Park officials discussed action levels for issuing shelter-in-place for the city. The city determined to leave the action levels at 1 ppm. CTEH continues to conduct air monitoring near the facility and in the residential areas. CTEH is also addressing any complaints received by ITC and are going to those complaint locations to conduct air monitoring.

EPA deployed its TAGA bus and conducted ASPECT aircraft sorties during this reporting period. EPA START contractors, Weston Solutions, will be conducting mobile air monitoring primarily in the residential area south of Highway 225. The EOC will be contacted from the field if benzene readings above 2.25 ppm are detected.

TCEQ investigators and TCEQ's contractor, NRC, conducted air monitoring with handheld instruments throughout the area during this operational period. Teams of TCEQ regional investigators and contractor NRC conducted odor surveys and air monitoring using handheld instruments throughout this operating period. Notable readings include a reading of 2.1 ppm benzene at Oak and Center Streets

in Deer Park and VOC concentrations from 18.74 to 42.90 ppm in Deer Park south of Hwy 225.

TCEQ regional Investigators, accompanied by incident command staff, viewed the ITC site using an optical gas imaging camera (OGIC) from approximately 5:35 to 6:50 pm from near the intersection of Wayne's Private Blvd and Tidal Road to view. No emissions were detected by OGIC.

Monitoring vans conducted measurements at Lynchburg Ferry around midnight to confirm a benzene alarm of 500 ppb at that location. The van measured around 20 ppb at that location. The vans were relocated south around 3:30 am to 9705 Spencer Highway in La Porte. No detectable levels of benzene were measured. The vans were relocated once again at 10:30 am to the west of the ITC facility along Jacintocourt Blvd where they monitored throughout the remainder of the day. No detectable levels of benzene were measured.

ITC contractor, Cardno, continues to work on a water sampling plan and to conduct water sampling for ITC. CTEH is developing a waste management plan.

A flash fire occurred on a manifold at approximately 7:00 pm on March 21, 2019, when insulation on a charged steam line caught fire. The fire was extinguished within approximately five minutes.

A Rapid Assessment Team comprised of ITC, TCEQ, and USCG representatives will assess and document the extent of the fire water/firefighting foam runoff starting at approximately 8:15 am Friday March 22, 2019. USCG is working with Oil Mop Inc. (OMI) to recover firefighting foam from the Houston Ship Channel. OMI has three boats in the water using skimmers to collect the material and transfer it to a barge. At least one member of CTEH is simultaneously conducting air monitoring to ensure safety of personnel. If CTEH detects readings of 4 ppm of benzene, they are to contact the EOC.

School districts that will be closed on March 22, 2019, include Deer Park ISD, La

Porte ISD, Pasadena ISD, Channelview ISD, Galena Park ISD, Sheldon ISD, Goose Creek ISD, San Jacinto College, Lee College, and several private schools.

From: Jonathan Walling

Sent: Thursday, March 21, 2019 10:55 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 4: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 4

At approximately midnight Thursday, March 21, 2019, CTEH and ITC handheld air monitors showed benzene levels between .5 ppm and 1.0 ppm around the Incident Command Post. The Command Post was moved to the Loves Travel Stop located at Highway 225 and Independence Parkway, where benzene was detected at 1.0 ppm. ITC sent out an E-Notify at 2:57 am stating that there was a potential for residential impact and at 3:26 am ITC sent out an industrial shelter-in place due to the elevated benzene readings. The Hot Zone was expanded from the tank farm on Tidal Road and Independence Parkway to as far south as Miller Cut-Off Road. At 4:30 am, Deer Park City Officials issued a shelter in place to include the area south of Tidal Road, east of Beltway 8, west of Underwood, and north of Pasadena Blvd due to the elevated readings. Deer Park Police closed Highway 225 from Beltway 8 to Miller Cut-Off Road. This was later expanded to close the highway from Beltway 8 east to State Highway 146. Deer Park ISD announced that schools would not be holding classes Thursday. According to Harris County OHSEM, La Porte ISD, Pasadena ISD, Sheldon ISD, Galena Park ISD, and Channelview ISD have also announced that schools would be closed Thursday. As of 5:00 am Thursday, local media is reporting that a distinctive odor has been noted in the Deer Park area.

At approximately 4:30 am, Weston Solutions detected benzene levels of .35 ppm at East 13th Street and East Blvd, Deer Park. Weston Solutions next plans to take readings at the intersections of East Blvd and E San Augustine, East Blvd and E

Pasadena Blvd, and East Blvd and Spencer Highway.

The TCEQ Monitoring Division (MD) conducted sampling near the intersection of Beltway 8 (east) and I-10. The MD later conducted additional sampling at 15631 Jacintoport Blvd, east of the previous sample location. TCEQ Region 10 (Beaumont) sent 8 staff to assist with air monitoring. NRC contractors arrived at the Houston Regional office at approximately 10:30 pm to assist with air monitoring. From 3:30 am to 4:30 am Thursday, TCEQ Air investigators detected VOC readings as high as 8ppm at La Porte Elementary.

The EPA is continuing to conduct air monitoring near the facility and within the communities. The TAGA mobile lab has arrived and is beginning to conduct monitoring this morning (Thursday, March 21, 2019). The TAGA lab will focus on areas where there have been complaints and elevated air monitoring readings.

There was a flare-up at Tank 80-005 containing mixed xylenes at approximately 5:23 pm Wednesday. Video of the flare-up was broadcast on local and national media. The fire was extinguished in less than 15 minutes. ITC is applying foam at the impacted tanks to prevent the flareup of any more tanks. Foam is being added approximately three times every four hours at a rate of 180,000 gallons of foam per foaming operation. The facility stated that there is approximately 2 feet of freeboard within the secondary containment. The secondary containment has a capacity of 175,000 barrels (7.38 million gallons). On Wednesday, the facility closed outfall 003 and reduced sampling frequency downstream of the outfall from hourly to once per two hours. The facility stated that it will open outfall 003 at each foaming operation to manage the water in the secondary containment and remove approximately what is being pumped onto the fire per operation.

The TCEQ and EPA requested that water sampling be done each time the outfall is opened. The facility plans to conduct sampling of each foam used to fight the fire to ensure that none contain PFAS beginning Thursday, March 21, 2019. This analysis has a turnaround time of five days. The facility stated that a surface drain discharges near the same point as outfall 003 and that this is the source of runoff water currently flowing in the facility ditch. The facility has requested that a contractor, Oilmop, mobilize resources (skimmers, vac trucks, and frac tanks) and ensure that boom placement is effective and that booms remain in place. The EPA is planning to collect additional water samples with U.S. Coast Guard on the bayou and TCEQ and it's contractor will participate in this sampling effort. At 4:45

am. on March 20, 2019 during water sampling where the discharge enters Tucker Bayou, Weston Solutions detected benzene in the air at 1.5 ppm.

During a TCEQ water sampling event conducted Wednesday between 5:00 pm and 8:30 pm, oily product was found in the water near a sampling point in a stream running parallel to Tidal Road and flowing into Tucker Bayou. The water appeared coffee colored with an oily bubbly looking substance on top of the water.

ITC is developing a plan to collect the firefighting foam and water and to either place it in Tank 100-18 or onto a barge for storage until a proper disposal plan can be generated. Another option would be to treat the water at the wastewater plant located at the facility; however, facility personnel expressed concern about brackish water adversely affecting the wastewater plant.

On Wednesday, facility personnel stated that they were planning to move products out of tanks in the affected area giving priority to removing pygas. The facility began to pump the remaining material from Tank 80-007 (pygas) to Tank 100-028 which has a capacity of 100,000 gallons on Wednesday. This operation failed because the valve for tank 80-007 was inaccessible due to flooding. Pygas from Tank 80-010 was being pumped to 100-028. The pumping of 80-010 is expected to be completed by the end of the day March 21, 2019.

From: Jonathan Walling

Sent: Wednesday, March 20, 2019 11:41 AM

To: HSNotify <HSNotify@tceq.texas.gov>; IGR <IGR@tceq.texas.gov>

Subject: Update 3: R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

Update No. 3

At approximately 3:00 AM on March 20, 2019, ITC drafted a press release stating that the fire was extinguished and in “cooling mode.” Only fire water will continue to be put on the tanks for cooling and to help prevent any potential flare ups. Fire foam will remain on standby in the event any flames reoccur. Prior to 3:00 AM, and throughout the day on March 19, 2019, the fire management in the tank farm was dynamic (e.g., managing flare ups in different tanks; floating fire adjacent to a tank, etc.).

Currently, the following have reported school closures for March 20, 2019: Deer Park ISD, La Porte ISD, Channelview ISD, Sheldon ISD, Galena Park ISD, San Jacinto College, and Pasadena ISD. The closure determination was made prior to midnight.

TCEQ staff continue to assist Unified Command. Update meetings with ITC are being conducted every three hours. TCEQ staff oversaw its contractor’s collection of water samples in Tucker Bayou. TCEQ staff also conducted air monitoring and odor surveys in the surrounding communities. The TCEQ’s emergency response coordinator went to the incident command post (ICP) to observe the current status of fire-fighting efforts overnight. With the fire status as extinguished, the Unified Command is evaluating moving to a condensed schedule. Currently proposed is a 7 am to 7 pm shift. Any change in command coverage will be confirmed at the next update. The U.S. Coast Guard continues to monitor the incident and the operations at Tucker Bayou and participate in Unified Command. Harris County Pollution Control continues to address citizen complaints and conduct air monitoring in correlation with the direction of the plume.

Weston Solutions conducted air monitoring downwind of the fire while following the plume according to weather conditions during this period. In addition, at the request of EPA, Weston Solutions conducted air monitoring at 14 superfund sites in the area. No detections observed above background in those locations.

Constituents monitored: VOCs, Oxygen, LEL, H₂S, CO, Benzene (if needed) using Instruments MultiRAE Pro, UltraRAE (if needed for benzene).

On March 19, 2019, Ms. Sara Montelongo-Oyervidez, District Director of State Senator Carol Alvarado’s office visited the ICP at ITC to review operations.

Air: CTEH continues to conduct air monitoring and has now moved closer towards the source. CTEH continues to monitor for components of gasoline blend stock (benzene, toluene, ethyl benzene, and xylene a.k.a. BTEX) and VOCs under the plume. Monitoring data was provided by CTEH at 7:20 pm and 11:06 pm; no detections above action levels have been observed away from the tank farm. EMSI has been contracted by ITC to supplement the CTEH monitoring and is utilizing a mobile air monitoring unit. At the request of Unified Command, EMSI is monitoring residential communities and schools in the downwind areas of the plume. EPA requested that Weston Solutions continue neighborhood air monitoring through March 21, 2019.

The ITC contractor, CTEH, conducted air monitoring in Katy, Brookshire, and in the City of Houston. There were no detections observed above background in those locations. Constituents being monitored are LEL, H₂S, VOCs, CO, Oxygen, Benzene, Formaldehyde, Hexane, Naphtha, Naphthalene, Nitrogen Dioxide, Toluene, Xylene, and PM 2.5 using instruments MultiRae Series, AM510 or TSI Dust Cracks Gas Tech Color Metric Tubes, and UltraRAE.

The EPA's TAGA is scheduled to arrive Thursday March 21, 2019. Weston Solutions continues to monitor the downwind areas. Water sampling and particulate matter sampling will be conducted March 20, 2019 by Weston.

TCEQ Regional air monitoring teams and the TCEQ's Monitoring Division staff addressed the area east of 610, north of the ship channel (Cloverleaf, Manchester, Pasadena, Galena Park, Jacinto City, Channelview) on March 19, 2019 during the day and overnight. The crews are being repositioned on March 20, 2019 to account for the shift in the wind direction (more from the N/NE, slight wind). The TCEQ will continue air monitoring efforts until further notice.

Water information: ITC is collecting samples of its wastewater discharge every hour and testing for pH and COD in its in-house lab. Samples will be sent to ALS Laboratories for VOC, SVOCs, Oil & Grease, and COD analyses (results not yet provided). ITC provided a consolidated water sampling activity summary to the TCEQ/EPA overnight. ITC has engaged a contractor (Cardno) to develop a more specific document for sampling activities. Receipt of this document is anticipated to be late on March 20, 2019. The status of the analytical information has again been requested. The TCEQ will continue water sampling efforts until further notice.

The facility has placed a series of double booms along Tucker Bayou to help with any oil and foam containment. Skimmers have been engaged by ITC to remove foam from the bayou and the channel. Collected materials are moved via vacuum trucks to onsite frac tanks for temporary storage. The TCEQ did not observe the skimmers during the sampling conducted late afternoon of March 19th. The TCEQ Waste and Water Sections will be following up with the facility regarding the disposition of the collected materials.

TCEQ and EPA are coordinating efforts for water sampling.

- Weston Solution will be conducting water sampling in four locations on March 20, 2019, prior to Tucker Bayou for VOC, SVOCs, Oil & Grease, and COD.

- TCEQ has contracted NRC to conduct water sampling from Tucker Bayou to the Houston Ship Channel. On March 19, 2019, the contractor and TCEQ staff conducted sampling at four locations near the facility: at the confluence of Tucker Bayou and the Channel (just inside the boom); in the ditch along Tidal Road towards the facility; at the junction of the ditch and Tucker Bayou; and at a nearby bayou as a background. The samples will be analyzed for the primary parameters identified for the facility's main outfall (001): VOC, SVOCs, TSS, TDS, Total Metals, TCLP (if total metals elevated). Foam was observed on the bayou in places and into the channel.
- Additional sampling activities and the locations will be adjusted to reflect field conditions/observations. The sampling will be conducted until further notice.

Update No. 2

As of 2:00 am March 19, 2019, there were up to 10 tanks engaged in the fire, two of which are empty.

Weston Solutions conducted air monitoring down wind of the fire and followed the plume according to weather conditions. No readings of concern have been noted.

Harris County Pollution Control Services is conducting air monitoring and continues to address complaints that have been received by their office.

TCEQ Monitoring Division began conducting air monitoring in the Galleria area on March 18, 2019, the TCEQ Region 12 Office conducted monitoring into the morning hours on March 19, 2019 and continues to conduct monitoring. Based on the latest field observations, no readings of concern have been noted by region staff.

The foam and fire water runoff is being flushed into a ditch that leads to outfall 003 and then Tucker Bayou. ITC is conducting hourly water sampling at the

outfall and has not yet provided sampling data. The Coast Guard sent a small boat into Tucker Bayou for a visual inspection of impacts to the waterway. Some residual foam was observed in the bayou.

The facility is still currently attempting to empty tank 80-008 containing Naphtha. The other tanks are not being emptied due to safety reasons. ITC has hired a contractor to assist in fire-fighting efforts. The current Incident Commander for ITC is Hector Cadena.

Two STEERs reports for the fire-related emissions events have been submitted to the TCEQ. Report No. 304871 was submitted on March 18, 2019 at 10:05 a.m. for Tank 80-008. Report No. 304942 was submitted on March 18, 2019 at 4:56 p.m. for Tanks 80-002, 80-003, 80-005, 80-006, 80-011, and 80-013.

HOUSTON DEER PARK (CAMS 35)

The TCEQ ambient monitoring station at Houston Deer Park (CAMS 35) experienced operational issues with the AutoGC sampler, indicated by quality control failures on March 11. Therefore, data were invalidated back to the previous passing daily QC check which was March 10. Only the AutoGC was affected; other samplers at this monitoring station continued to operate normally.

The TCEQ contractor performed the repair March 13-16, 2019. Following this repair, the contractor must run a 1-point QC check, followed by a multi-point check typically completed within a few days. The instrument passed the 1-point QC check at 8:00 am on Saturday, March 16, 2019. The instrument resumed ambient data collection at 11:00 am on Saturday, March 16, 2019, the day before the fire.

The instrument continued to collect ambient data throughout the day on Sunday, March 17, 2019 and into Monday, March 18, 2019 until 5:00 am. The contractor began the multi-point check at 6:00 am on Monday, March 18, 2019. This QC check is required in the days following a repair.

The multi-point check was completed and ambient data collection has resumed as of 1:00 pm, Monday, March 18, 2019.

The ambient data collected from Saturday, March 16, 2019 through early

Monday, March 18, 2019, have undergone preliminary review and are within required quality standards.

The valid ambient AutoGC data collection resumed at 1:00 pm CST on March 18, 2019 and data appears ambient and consistent with normal trends.

TCEQ Region 12 Environmental Investigators, TCEQ Monitoring Division, Harris Co., EPA contractor Weston Solutions, CTEH, and Houston HAZMAT are continuing to conduct air monitoring across the affected area. EPA estimated that a Trace Atmospheric Gas Analyzer will arrive on site on Thursday, March 21, 2019.

The TCEQ continues to be engaged with Unified Command on a 24-hour basis.

Update No. 1

The responders on scene are Channel Industries Mutual Aid (CIMA), Houston Port Authority, Harris County Hazmat (HC Hazmat), Harris County Pollution Control Services (HCPCS), United States Coast Guard (USCG), Environmental Protection Agency (EPA)/Weston Solutions. Todd Teague is the Incident Commander with CIMA, and Carl Kelly is the Incident Commander for ITC. EPA, TCEQ, and local authorities are coordinating with the first responders.

TCEQ staff were present overnight and will continue to have a presence onsite throughout the event.

The fire started at 10 AM (3/17/19) at Tank 080-008. The responders have not estimated the duration of the event. Tank No. 080-008 held 74,000 bbl. of naphtha (3.1 million gallons). As of 4:30 AM (3/18/19), there were at least eight tanks reported to be engaged in the fire in some manner (e.g., insulation; piping manifold). The contents of these tanks are petroleum fuels and solvents. The remaining six tanks at the tank farm contain gasoline blend stock (e.g., pyrolysis gas).

Air monitoring in the area and downwind conducted by local, state, and federal agencies (HCPCS, Houston Port Authority, HC Hazmat, TCEQ) have had no findings of concern. ITC contracted with CTEH and 24 HR Safety to conduct air monitoring and have had no findings above established action levels. CTEH drafted and submitted an air monitoring plan to Incident Command.

Air monitoring will continue to be conducted by the RP, TCEQ, and other state, federal, and local authorities. Additional monitoring equipment and TCEQ staff arrived onsite on 3/18/19.

The City of Deer Park expanded the initial shelter-in-place to include the whole city at approximately 1:20 PM (3/17/19). At 6:00 AM (3/18/19), the City of Deer Park announced that the shelter-in-place was lifted. Also, all Deer Park and La Porte independent School District campuses will be closed 3/18/19. Please see links below:

<http://www.ci.deer-park.tx.us/CivicAlerts.aspx?AID=979>

<https://www.lpsid.org/>

A release of fire water to the stormwater system occurred. Flow left the plant property at stormwater outfall No. 003 into a ditch that leads to the Houston Ship Channel (HSC) which is over one mile downstream. Booms have been placed in the ditch to prevent the fire water from reaching the HSC.

The TCEQ Emergency Management Strike Team is enroute to assist and contribute to the response efforts.

From: Jonathan Walling
Sent: Sunday, March 17, 2019 2:48 PM
To: HSNotify <HSNotify@tceq.texas.gov>
Cc: IGR <IGR@tceq.texas.gov>
Subject: Initial/R12/Air and Fire/Smoke and Naphtha/Intercontinental Terminals - Deer Park Terminal/Significant Incident/Notification Report to State Legislators

On March 17, 2019 at approximately 10:00 a.m., Intercontinental Terminals Deer Park (ITC) experienced a fire at their tank farm. The incident was reported through Chemtel No. 20190902 at 12:13 p.m. and NRC No. 1240304 at 12:29 p.m. The ITC representative indicated that the fire was in a tank that contained naphtha and may burn for an unknown amount of time. Mr. Hill, HCPCS, stated there were road closures but it is unknown which specific locations were closed at this time.

Mr. Craig Hill, Field Manager for Harris County Pollution Control Services (HCPCS), stated that they currently have investigators out in the field conducting air monitoring (benzene). ITC representatives stated they would also be conducting air monitoring. At this time, the specifics regarding the air monitoring location(s) is not known to the ERC.

The ERC Tina Tran was dispatched to the site and arrived on-scene at approximately 1:45 p.m. The ERC will evaluate the incident and provide update(s).

A shelter-in-place was enacted for the north end of the City of Deer Park by city emergency personnel.

There is media coverage on this incident event:

<https://abc13.com/shelter-in-place-issued-for-deer-park-after-facility->

[fire/5200816/](#)

<https://www.khou.com/article/news/local/shelter-in-place-issued-in-deer-park-due-to-fire-burning-at-plant/285-30ca8f2d-f977-4b38-b2ca-a1f76f6140b5>

<https://www.12newsnow.com/article/news/shelter-in-place-issued-in-deer-park-due-to-tank-fire/502-30ca8f2d-f977-4b38-b2ca-a1f76f6140b5>

<https://www.click2houston.com/news/fire-reported-inside-itc-deer-park-facility-day-after-exxon-plant-fire>

A STEERS report will be submitted for this event as needed.

SitRep

Type of Incident: Air Release

TCEQ Notification Type: Significant Incident

Notification Status: Initial

General Incident Information:

Type of Incident: Fire

Date: 3/17/2019

Time Incident Started: 1000 hours

Time TCEQ Notified: The TCEQ has received SERC and NRC notifications at 1213 and 1229 hours

TCEQ Region: 12- Houston

Responsible Party (RP)/Regulated Entity Information/Incident Location

RP/Regulated Entity Name: Intercontinental Terminals Deer Park Terminal

RN Number: RN100210806

Incident location: 1943 Independence Pkwy S

City: La Porte

County: Harris

RP Contact Name and Information: Mr. Mike Taylor

Specific Incident Information:

Description of Event / Cause: On March 17, 2019 at approximately 10:00 a.m., Intercontinental Terminals Deer Park (ITC) experienced a

fire at their tank farm. ITC evacuated personnel. A shelter-in-place was enacted for the north end of the City of Deer Park by city emergency personnel. ERC Tina Tran was dispatched to the site at approximately 1245 hours and arrived at approximately 1345 hours. The ERC will evaluate the incident and provide an update/assessment.

Material Released: Smoke

Amount Released: Unknown

Affected Media: Air

Injuries or Fatalities: None Reported

Other Risks: N/A

Current Response:

TCEQ Response: ERC Tina Tran dispatched at 1245 hours; arrived 1345 hours

TCEQ Responder Name and Contact Information: Ms. Tina Tran

Incident Commander Name and Contact Information: Unknown

Other Federal, State, or Local Authorities on Site: Harris County Pollution Services

Other Pertinent Information, If Applicable:

Weather: 59 degrees F

Wind Direction: 9 miles per hour from the Northeast

Potentially Impacted Receptors: Surrounding land use is commercial and residential. The nearest sensitive receptor is a subdivision about 2 miles SSW.

Other: None

**** PLEASE NOTE: This notification is based on the initial report of a spill / release / emission event / threat / or other such occurrence received by TCEQ. Since this notification may contain preliminary information, the TCEQ cannot verify the types or quantities of releases at this time and cannot make any definitive determination about the potential danger to human health or the environment as a result of this release. Specific chemicals, quantities, and the identified risk to human health and safety or environment may change as more information becomes available. TCEQ is providing the information available for the incident at the time of the notification. Staff may not have all the information requested on this Template.**